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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,932	11/15/2005	Magnus Hallenstal	P16768-US1	2075

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EXAMINER	
AFOLABI, MARK O	

ART UNIT	PAPER NUMBER
2454	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,932	HALLENSTAL ET AL.	
	Examiner	Art Unit	
	MARK O. AFOLABI	2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/17/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is considered fully responsive to the amendment filed on 11/17/2008 for the patent application 10/521,932 filed 01/24/2005. Claims 1-10 are cancelled, claims 11-18 are new, and all claims 11-18 have been examined and remain pending.

Response to Arguments

2. Applicant's arguments filed on November 17, 2008 have been fully considered, however, examiner is moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11, 12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholtens et. al. (US 7,054,273) (hereafter Scholtens) in view of Mimura et al. (US 2001/0021176 A1).

Regarding claim 11, a method of testing end to end relations between an originating gateway and a destination gateway in an I P network, said method comprising the steps of:

Scholtens teaches,

reserving call (e.g., item 235 of Fig. 3A) handling resources in the originating gateway (e.g., item 100A of Fig. 1, "originating gateway") for an end to end test (e.g., col. 4, lines 3-41);

establishing a session between the originating gateway and the destination gateway (e.g., telephone switching equipment to connect the originating and terminating ends of a telephone call using SS7 messages...The exchange of call control signals allows the gateways 100A, lOOB to As shown in FIG. 1, a continuous call path can be to establish a connection through the ATM network 101, col. 4, lines 3-12 and item 270 of Fig. 3B);

sending a seizure signal from the originating gateway to the destination gateway, said seizure signal indicating that the end to end test is to be performed (e.g., item 230 of Fig. 3A, "Call controller sends a connection control message (createconn) to the origination gateway to initiate a connection through the ATM network and to indicate that the sending side of a continuity check is requested"), which interface to use for the test, and a desired number of call handling resources to be used for the test (e.g., item 210 of Fig. 3A, "User at the originating end dials a telephone number");

receiving a resource ready acknowledgment signal in the originating gateway from the destination gateway, said acknowledgment signal indicating that the desired number of resources are available (e.g., item 250 of Fig. 3A, "Gateway returns an acknowledgement message (createack) that includes a connection descriptor including information that uniquely identifies the call");

configuring the reserved call handling resources in the originating gateway (e.g., 235 of Fig. 3A, "ORIGINATING GATEWAY RESERVES RESOURCES FOR THE CALL AND MAKES THE ....) with appropriate data for the test in response to the acknowledgment signal from the destination gateway (e.g., item 255 of Fig.

3A, "ORIGINATING CALL CONTROLLER SENDS AN IAM MESSAGE TO THE TERMINATING CALL CONTROLLER INCLUDING AN INDICATION THAT THE CONTINUITY CHECK OPERATION IS TO BE PERFORMED FOR THE IDENTIFIED CALL");

distinguishing the test data packets from other data traffic in the destination gateway on the basis of the source address field (e.g., The media gateways 100A, lOOB adapt the TDM telephone line signals to packet-based signals ...the bit stream can be divided temporally into individual DSO circuits. By contrast, in packet-based signals, the stream can be divided according to the destination address of each packet, col. 3, lines 27-37) in the test data packet headers (e.g., the gateways 100A, 100B and ATM switches 110, 115 negotiate the ATM routing headers that will be used between hops along the packet-domain connection, col. 5, lines 38-43);

looping back the received test data packets from the destination gateway to the originating gateway by exchanging source (e.g., the gateway lOOB [i.e., destination gateway] also sets UP 275 a continuity check loop between the incoming and outgoing packet streams 128, 130 associated with the packet network connection. FIG. 5 shows the loopback provided in the TDM-domain of the gateway 100B...the loopback can be provided in either the TDM-domain or the packet-domain, col. 5, lines 44-55)

receiving the looped back test data packets in the originating gateway (e.g., the packet switches 110, 115 until it is received by the originating gateway, col. 5, lines 32-58, particularly, lines 35-38);

Scholtens does not explicitly teach sending a plurality of test data packets with the data for the test to the destination gateway and destination address fields in the packet headers of the test data packets, while sending other data traffic to defined

destinations and calculating quality statistics for the received data packets by the originating gateway.

However, Mimura teaches sending a plurality of test data packets with the data for the test to the destination gateway (e.g., the number of packets received and the count of bytes received on a switch that receive packets from the sending-end terminal as well as the number of packets transmitted and the count of bytes transmitted on a switch that transmits packets to the receiving-end terminal, [0014], Mimura); and

destination address fields in the packet headers of the test data packets, while sending other data traffic to defined destinations (e.g., a communication flow to which the IP packet belongs is identified by the match between the data, for example, source and destination IP addresses specified in the packet header, [0008], Mimura);

calculating quality statistics for the received data packets by the originating gateway (e.g., communication flow units (a data flow sent from a network user terminal and received at another network user terminal) and collect communication quality and related statistics data in the existing IP networks, [0004], Mimura).

It would have been obvious to one of ordinary skill in the art at the time invention was made, given the suggestions of ***Scholtens*** and ***Mimura*** to show that address fields in the packet headers of the test data packets and quality statistics for the received data packets in a network would lead to a great performance results in the network. One would be motivated to utilize a user data packets being transmitted between the terminals for carrying the statistics data obtained by monitoring, as indicated by the header of the user data including this data, is exactly the same as the route for carrying other user data packets of the same communication flow and quality statistics or service quality for packet monitoring in allowing noticeable advantage for assuring that time sequence of the statistics data obtained by monitoring is traceable in any end to end network communication [0053 and 0044], Mimura.

Regarding claim 12, further comprising specifying in the seizure signal, a time interval for performing the test (e.g., the pattern detector 122 can include a software or hardware timer 132 that provides a timeout function. If the pattern detector 124 does not detect the generated pattern within the time set by the timer, col. 6, lines 1-9, Scholtens).

Regarding claim 15, an arrangement for testing end to end relations between an originating gateway and a destination gateway in an IP network, said arrangement comprising:

means (e.g., item 100A of Fig. 1, Scholtens) in the originating gateway for reserving call handling resources in the originating gateway for an end to end test (e.g., col. 4, lines 3-41, Scholtens);;

means (item 270 of Fig. 3B, Scholtens) for establishing a session between the originating gateway and the destination gateway (e.g., col. 4, lines 3-12, Scholtens);;

means (e.g., item 230 of Fig. 3A, Scholtens) in the originating gateway for sending a seizure signal from the originating gateway to the destination gateway upon establishment of the session, said seizure signal indicating that the end to end test is to be performed, which interface to use for the test, and a desired number of call handling resources to be used for the test (e.g., item 210 of Fig. 3A, "User at the originating end dials a telephone number", Scholtens);;

means (e.g., item 250 of Fig. 3A, Scholtens) in the originating gateway for receiving a resource ready acknowledgment signal from the destination

gateway, said acknowledgment signal indicating that the desired number of resources are available (e.g., Fig. 3A, Scholtens);

means (e.g., 235 of Fig. 3A, Scholtens) in the originating gateway for configuring the reserved call handling resources in the originating gateway with appropriate data for the test in response to the acknowledgment signal from the destination gateway (e.g., Fig. 3A, Scholtens);

means (e.g., item 82 of Fig. 8, Mimura) in the originating gateway for sending a plurality of test data packets with the data for the test to the destination gateway (e.g., [0019], Mimura);

means (e.g., IP Header of Fig. 9a and 9B, Mimura) in the destination gateway for distinguishing the test data packets from other data traffic on the basis of the source address field in the test data packet headers (e.g., Fig. 9A and Fig. 9B, Mimura);

means (e.g., loopback of Fig. 5, Scholtens) in the destination gateway for looping back the received test data packets to the originating gateway by exchanging source and destination address fields in the packet headers of the test data packets, while sending other data traffic to defined destinations (e.g., col. 5, lines 44-55, Scholtens);

means (e.g., loopback of Fig. 5, Scholtens) in the originating gateway for receiving the looped back test data packets (e.g., col. 5, lines 32-58, particularly, lines 35-38, Scholtens); and

means (e.g., command to collect statistics data in Fig. 5, Simura) in the originating gateway for calculating quality statistics for the received data packets by the originating gateway (e.g., [0004], Mimura).

Regarding claim 16, further comprising means in the originating gateway for specifying in the seizure signal, a time interval for performing the test (e.g., the pattern detector 122 can include a software or hardware timer 132 that

provides a timeout function. If the pattern detector 124 does not detect the generated pattern within the time set by the timer, col. 6, lines 1-9, Scholtens).

5. Claims 13, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholtens (US 7,054,273) and Mimura (US 2001/0021176 A1) in further view of Mallory et al. (2002/0006136 A1) (Mallory hereafter).

Regarding claim 13, further comprising specifying in the seizure signal, a codec to be utilized for the test.

Scholtens and Mimura teach all the limitations of claim 11 such as, reserving call (e.g., item 235 of Fig. 3A) handling resources in the originating gateway (e.g., item 100A of Fig. 1, "originating gateway") for an end to end test (e.g., col. 4, lines 3-41);

establishing a session between the originating gateway and the destination gateway (e.g., telephone switching equipment to connect the originating and terminating ends of a telephone call using SS7 messages...The exchange of call control signals allows the gateways 100A, lOOB to As shown in FIG. 1, a continuous call path can be to establish a connection through the ATM network 101, col. 4, lines 3-12 and item 270 of Fig. 3B);

destination address fields in the packet headers of the test data packets, while sending other data traffic to defined destinations (e.g., a communication flow to which the IP packet belongs is identified by the match between the data, for example, source and destination IP addresses specified in the packet header, [0008], Mimura);

calculating quality statistics for the received data packets by the originating gateway (e.g., communication flow units (a data flow sent from a network user terminal and received at another network user terminal) and collect communication quality and related statistics data in the existing IP networks, [0004], Mimura).

Scholtens and Mimura fails to specifically point out a codec to be utilized for the test.

However, Mallory teaches a codec to be utilized for the test (e.g., PCM-.mu.Law is the codec currently employed as the standard for all US PSTN traffic, [0395]).

It would have been obvious to one of ordinary skill in the art at the time invention was made, given the suggestions of ***Scholtens*** and ***Mimura*** in an end-to-end communication between originating and destination gateway to utilized codec feature for an improvement in audio fidelity and audio delay characteristics and also reduce potential impulse noise events that can cause packet loss in a system, [0395], Mallory.

Regarding claim 14, wherein the step of calculating quality statistics includes calculating by the originating gateway (e.g., the element size information may be embedded in a statistics information element for element separation purposes: i.e., at the beginning of each element, the element size is specified. Because the element end location can be calculated by adding the element size to the location [0055], Mimura), dropped packets, round trip delay, and jitter (e.g., a software mechanism for determining the timestamp at a remote location and correlating that time to the local time, using round trip estimation to determine the correction for queuing delay at each end, e.g., Network Time Protocol, [0404 and 0405], Mallory).

Regarding claim 17, contains same limitation addressed in claim 13, hence same rejection is applicable.

Regarding claim 18, wherein the means in the originating gateway for calculating quality statistics includes means for calculating dropped packets, round trip delay, and jitter (e.g., the element size information may be embedded in a statistics information element for element separation purposes: i.e., at the beginning of each element, the element size is specified. Because the element end location can be calculated by adding the element size to the location [0055], Mimura), dropped packets, round trip delay, and jitter (e.g., a software mechanism for determining the timestamp at a remote location and correlating that time to the local time, using round trip estimation to determine the correction for queuing delay at each end, e.g., Network Time Protocol, [0404 and 0405], Mallory).

Claim Interpretation

6. Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969)".

The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of

ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

EXAMINER'S NOTE

7. Examiner has cited particular columns and line numbers or paragraph numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. The entire reference is considered to provide disclosure relating to the claimed invention.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Conclusion

8. Applicant's amendment necessitated the new ground(s of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK O. AFOLABI whose telephone number is (571) 270-5627. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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